PATENT CLAIMS

1. Method for detecting endotoxin, comprising the steps:

   a) incubation of a sample with a bacteriophage tail protein,

   b) detection of endotoxin bonded to bacteriophage tail proteins.

2. Method according to claim 1, if necessary comprising furthermore after step a) and prior to step b) the additional step

   a) separation of the bacteriophage tail protein-endotoxin complexes from the sample.

3. Method according to one of the claims 1 to 3, the detection being implemented by means of spectroscopic methods.

4. Method for removing endotoxin from a sample, comprising the steps:

   a) incubation of a sample with or bringing a sample in contact with bacteriophage tail proteins which are immobilised on a permanent carrier, non specifically or directed,

   b) separation of the bacteriophage tail protein-endotoxin complex from the sample.

5. Method according to claim 4, the steps a) and b) being implemented in a chromatography column throughflow method.

6. Method according to claim 4, the permanent carrier being filtration media, glass particles, magnetic particles, centrifugation materials, sedimentation materials or filling materials for chromatography columns.

7. Method according to claim 4 to 6, the bacteriophage tail proteins being immobilised on the permanent carrier via coupling groups.

8. Method according to claim 7, the coupling group being a lectin, receptor or anticalin.

9. Method according to claim 7, the coupling group being a streptavidin or avidin and the bacteriophage tail proteins being coupled with biotin or a Strep-tag.

10. Method according to claim 4 to 6, the bacteriophage tail proteins being immobilised on the permanent carrier covalently via chemical bonds.

11. Method according to one of the preceding claims, the bacteriophage tail protein having a Strep-tag or a His-tag.

12. Method according to claim 11, the tag having an amino acid sequence according to SEQ ID NO. 5, 6 or 7.

13. Method according claim 11 or 12, the p12 protein of the phage T4 being used as bacteriophage tail protein.

14. Method according to one of the preceding claims, the Ca^{2+} concentration in the incubation being 0.1 μM to 10 mM and the Mg^{2+} concentration being 0.1 μM to 10 mM.

15. Method according to one of the claims 1 to 3, marked endotoxin being displaced from the bond with a bacteriophage tail protein and the marked endotoxin being subsequently detected.